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EX PARTE OR LATE FILED

William F. Caton
Acting Secretary
Federal Communications Commission
Room 222
1919 M Street, N.W.
Washington, D.C. 20554

Re: ET Docket No. 93-7 -- Ex Parte Presentation

Dear Mr. Caton:

On May 11, 1995, representatives of the Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") made an ex parte presentation to Mark Corbitt, Office of Plans and Policy, regarding the Decoder Interface for cable ready consumer electronics equipment. Representing EIA/CEG were Matthew J. McCoy, George A. Hanover, and the undersigned of this Firm. The views expressed on behalf of EIA/CEG are reflected in the Association's filings with the Commission, as well as in the attached materials.

Please let us know if you have any questions.

Sincerely,



Joseph P. Markoski

Enclosures

cc: Mark Corbitt

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Electronic Industries Association

THE CABLE ACT, THE FCC'S CABLE COMPATIBILITY PROCEEDING, AND THE DECODER INTERFACE

- I. **SECTION 17 OF THE 1992 CABLE ACT DIRECTS THE FCC TO ADOPT RULES THAT, "CONSISTENT WITH THE NEED TO PREVENT THEFT OF CABLE SERVICE," ENABLE CONSUMERS "TO ENJOY THE FULL BENEFIT OF BOTH THE PROGRAMMING AVAILABLE ON CABLE SYSTEMS AND THE FUNCTIONS AVAILABLE ON THEIR TELEVISIONS AND VIDEO CASSETTE RECORDERS."**
- II. **THE FCC INITIATED ET DOCKET NO. 93-7, THE CABLE COMPATIBILITY PROCEEDING, TO IMPLEMENT SECTION 17 OF THE CABLE ACT.**
 - The First Report and Order adopted rules governing consumer electronics equipment that will be marketed as "cable ready," whether they be TVs, VCRs, PCs or other devices. The FCC's rules do not prescribe standards for any other consumer electronics equipment.
 - The First Report and Order requires "cable ready" consumer electronics equipment to include a Decoder Interface that:
 - enables analog TVs and other consumer electronics equipment to receive scrambled cable signals without using a cable-provided set-top converter box;
 - allows consumers to take full advantage of the features and functions of their TVs and VCRs;
 - prohibits cable operators from requiring consumers to use any cable-provided equipment other than a decoder module that performs security (i.e., descrambling) functions; and
 - provides consumers with access not only to cable television, but also "to competing video delivery systems, such as home satellite dish, Direct Broadcast Satellite and wireless cable."
 - The First Report and Order directed the C³AG to submit detailed specifications for the Decoder Interface no later than August 15, 1994.

III. ALTHOUGH THE CABLE AND CONSUMER ELECTRONICS MEMBERS OF THE C³AG HAVE NOT YET BEEN ABLE TO AGREE ON ALL OF THE PARAMETERS OF THE DECODER INTERFACE, THE STANDARD THAT IS ULTIMATELY ADOPTED MUST SATISFY THE REQUIREMENTS OF THE CABLE ACT AND THE FIRST REPORT AND ORDER.

- The Cable Act requires both "plug and play" compatibility and the prevention of signal theft.
- The First Report and Order requires the Decoder Interface to:
 - "allow access control functions to be separated from other control functions";
 - permit the descrambling of authorized programming only; and
 - support cable television, as well as "competing video delivery systems."
- To comply with these legislative and regulatory requirements, the Decoder Interface must:
 - include a control channel that enables consumers to select the decoder module associated with a particular video delivery system, a task that cannot be performed by a simple physical interface;
 - include a control channel that permits communication between the selected decoder module and the "cable ready" TV or VCR so as to ensure that consumers are only given access to authorized programming, a task that cannot be performed by a simple physical interface; and
 - deliver descrambled audio and video signals from the decoder module to "cable ready" consumer electronics equipment.
- A control channel requires the use of a command language or protocol that is understood by each of the decoder modules attached to the Decoder Interface. Absent such an agreed upon language or protocol, consumers would have no assurance that their "cable ready" consumer electronics equipment will work with cable television and other video systems.
- In short, IS-105 must include a bus structure in order to comply with the requirements of the Cable Act and the First Report and Order.

IV. DRAFT IS-105, THE INCOMPLETE DECODER INTERFACE STANDARD WHICH THE C³AG FILED WITH THE FCC ON AUGUST 15, 1994, DOES NOT INCORPORATE OR FAVOR ANY HOME AUTOMATION STANDARD.

- IS-105 is an open, non-proprietary standard.
- IS-105 is not a subset of AVBus.
 - AVBus is designed to support interconnected audio and video entertainment devices such as TVs, VCRs, disc players, receivers, tape decks, surround sound and home theaters; the IS-105 bus, by contrast, is designed to support decoder modules attached to the back of "cable ready" consumer electronics equipment.
 - AVBus commands allow for two-way communication between audio and video entertainment equipment; IS-105 bus commands, by contrast, only allow for communication between decoder modules and consumer electronics equipment.
 - AVBus has a maximum length of 10 meters (less than the perimeter of an average room); the IS-105 bus, by contrast, has a maximum length of only 2 meters (less than the width of an average room).
- IS-105 is not a subset of CEBus.
 - CEBus is intended to control the operation of most home products; the IS-105 bus, by contrast, only supports decoder modules attached to the back of "cable ready" consumer electronics equipment.
 - CEBus consists of five discrete buses, depending on the media employed (e.g., power lines, coaxial cable, RF); IS-105, by contrast, uses none of these buses.
 - CEBus has a maximum length of 30 meters (adequate to serve an average home); the IS-105 bus, by contrast, has a maximum length of 2 meters (less than width of an average room).
- The IS-105 command channel utilizes "CAL," the Common Application Language used by AVBus and CEBus.
 - There is nothing unique about CAL; like other control system languages, CAL is object-oriented (so as to make it easier to understand and use). Unlike Echelon's command language, CAL can be used without restriction by any manufacturer.

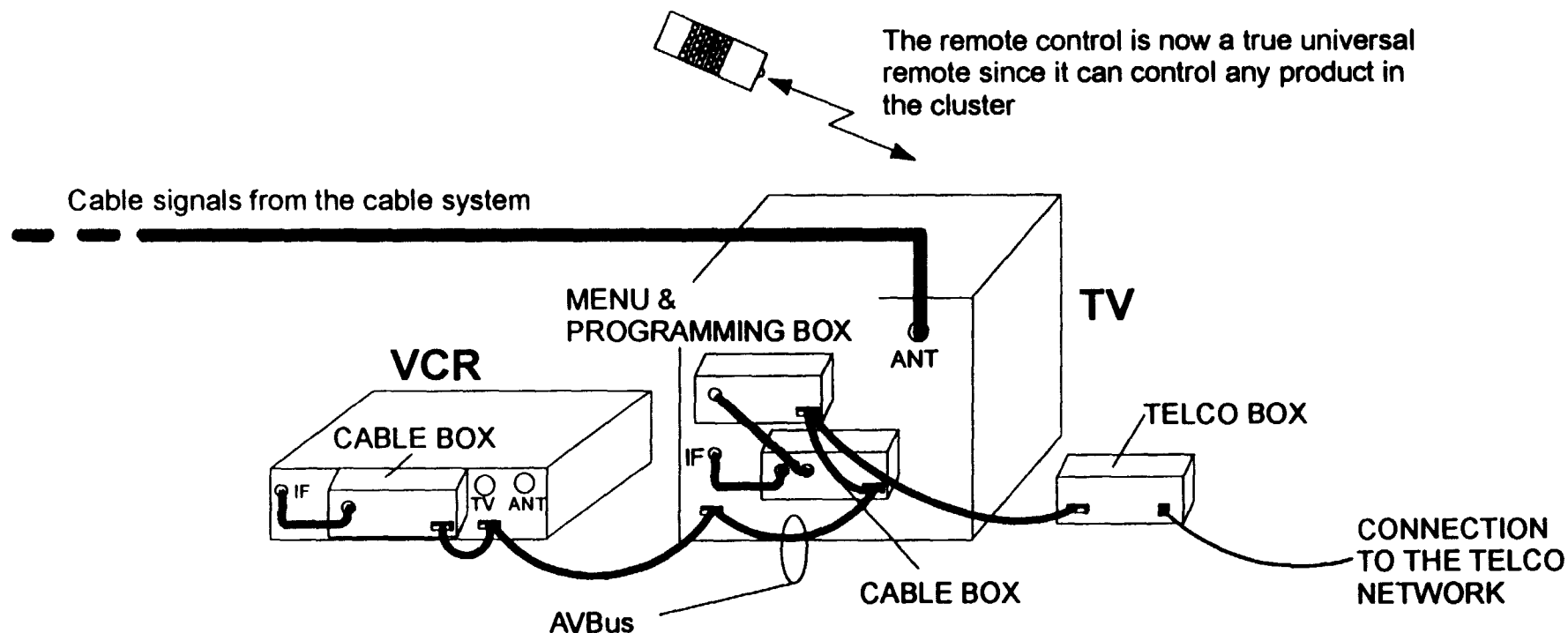
- What distinguishes the CAL used by the Decoder Interface from other languages is not the language itself, but rather the Decoder Interface-specific commands that have been defined.
- If IS-105 did not utilize CAL, it would have been necessary for C³AG to develop or use an equivalent, agreed upon language to ensure that "cable ready" TVs and VCRs can function with cable and other "competing video systems."
- IS-105's use of CAL does not favor AVBus or CEBus, nor make it suitable for home automation purposes because the Decoder Interface:
 - can only support a limited number of decoder modules;
 - cannot use the media (e.g., power lines) needed to operate a home automation system;
 - is limited to a bus that is 2 meters long; and
 - a "gateway" would be required to connect the Decoder Interface to any home automation system.

V. ECHELON'S ELEVENTH-HOUR CHALLENGE TO THE DECODER INTERFACE SHOULD BE REJECTED.

- Echelon's problems are not with the Decoder Interface, but rather with the requirements of the Cable Act and the First Report and Order.
- Echelon never challenged the Cable Act or asked the FCC to reconsider the First Report and Order.
- Echelon had the opportunity, but never actively participated in the ANSI-accredited process that was used to develop IS-105.
- To preclude IS-105's use of CAL would mean that every new standard must be developed "from the ground up" and may not rely on the most rudimentary elements of other standards. Such a result is inconsistent with sound engineering and would seriously undermine the standards-setting process.

- The FCC's rules regarding "cable ready" consumer electronics equipment, which become effective on June 30, 1997 and which do not yet include the specifications for the Decoder Interface, already leave too little time for the consumer electronics industry to design and manufacture "cable ready" equipment.
- Any delay in the availability of "cable ready" consumer electronics equipment will perpetuate the compatibility problems which the Cable Act was intended to redress.
- The Decoder Interface -- which is designed to address the compatibility of analog TVs and cable systems -- is a transitory mechanism that will decline in significance with the advent of digital audio and video transmission.

THE DECODER INTERFACE: ADDING OTHER NETWORK BOXES



Electronic Industries Association Consumer Electronics Group

Presentation on the Decoder Interface
Competition and Consumer Protection

ET DOCKET NO. 93-7
JANUARY 19, 1995

The Issue

◆ *Congress has directed the FCC to adopt regulations:*

- That allow consumers to take full advantage of the features and functions of their TVs and VCRs.
- That allow consumers to enjoy all of the programming available on cable.
- That promote the commercial availability of set-top boxes and remote controls.
- That prevent cable signal theft.

The Problem

◆ *The FCC wants to:*

- Separate security and non-security features and promote competition in the latter.
- Ensure that consumers can use the features and functions of their TVs and VCRs
- Prevent signal theft.
- Not limit future technology.

◆ *The consumer electronics industry wants to:*

- Ensure that consumers can use the features and functions of their TVs and VCRs.
- Open non-security set-top boxes and features to competition.
- Not limit future technology.

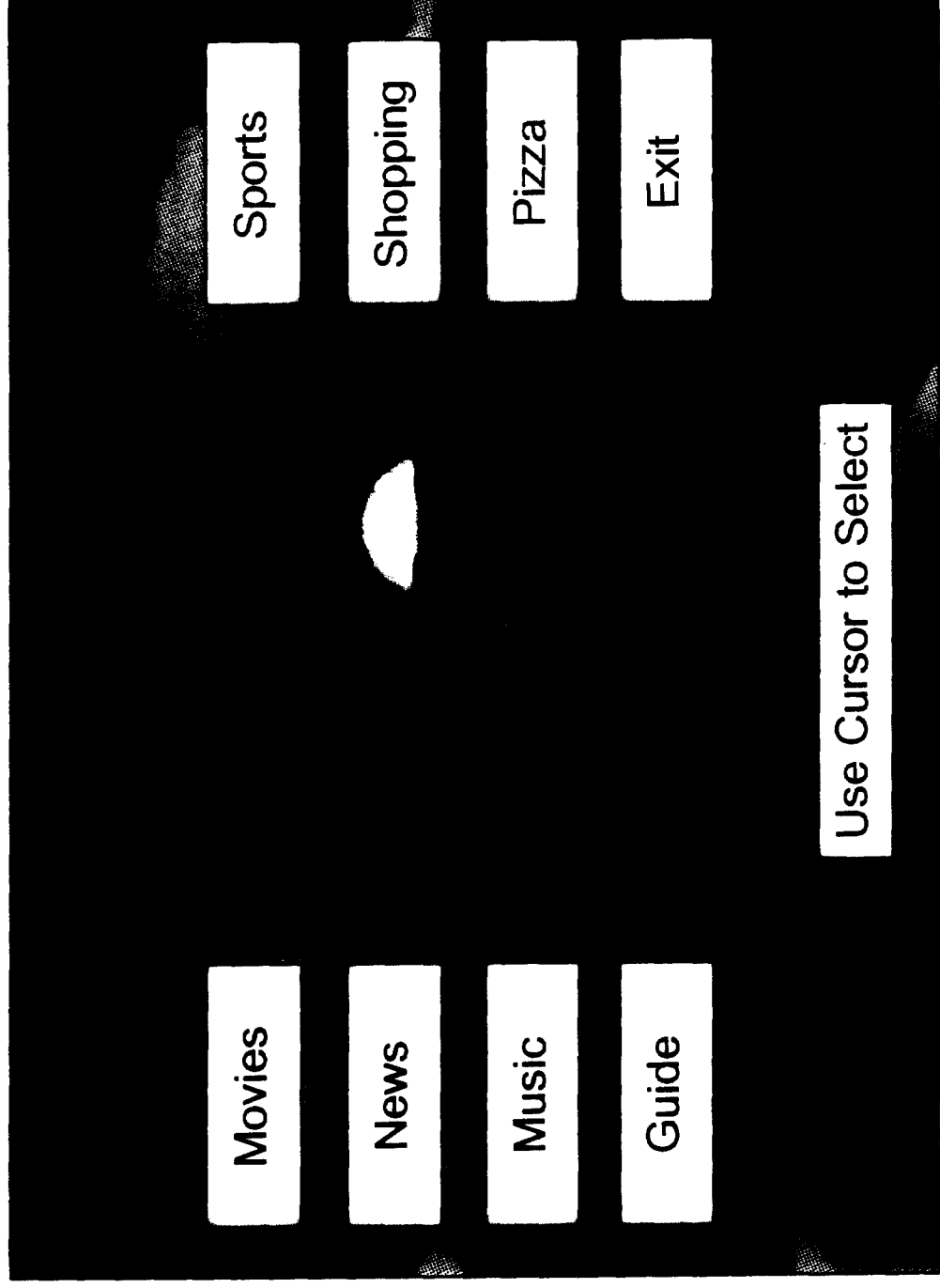
◆ *The cable industry wants to:*

- Prevent signal theft.
- Control the gateway to its services.
- Not limit future technology.

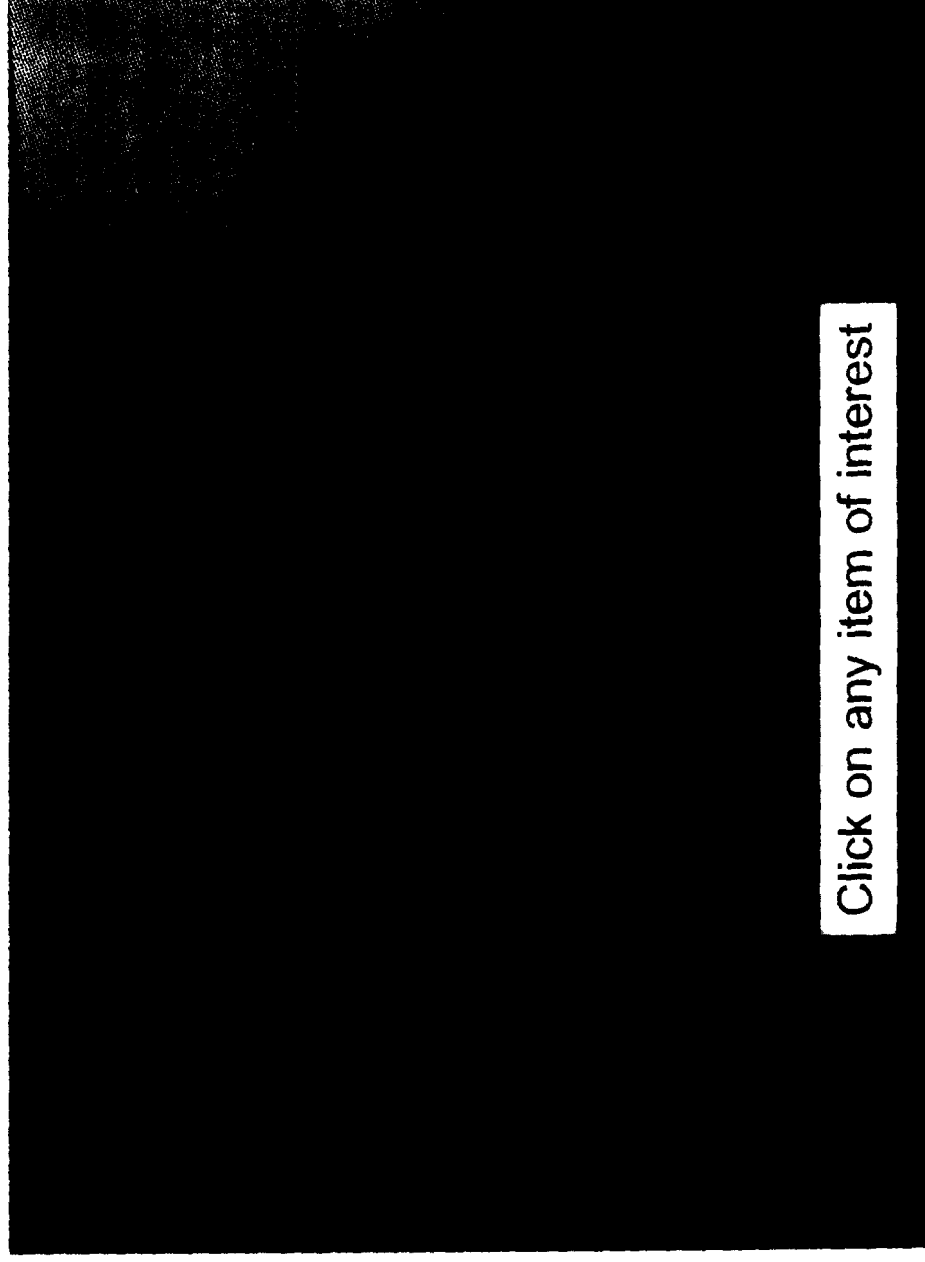
The Proposed Decoder Interface

- ◆ Separates the provision of security and non-security features.
- ◆ Through bus architecture, gives consumers equal access to cable, satellite, and video dialtone services.
- ◆ Offers each service provider the means to create its own unique user interface using the consumer's "cable-ready" TV remote.
- ◆ Offers unlimited flexibility through service provider-defined commands, menuing, and use of multiple set-back boxes.
 - Supports any conceivable function.
 - Works with mouse-like controls.
 - Is technologically benign.
 - Will replicate benefits of competitive CPE marketplace in video services market.

Menu Flexibility

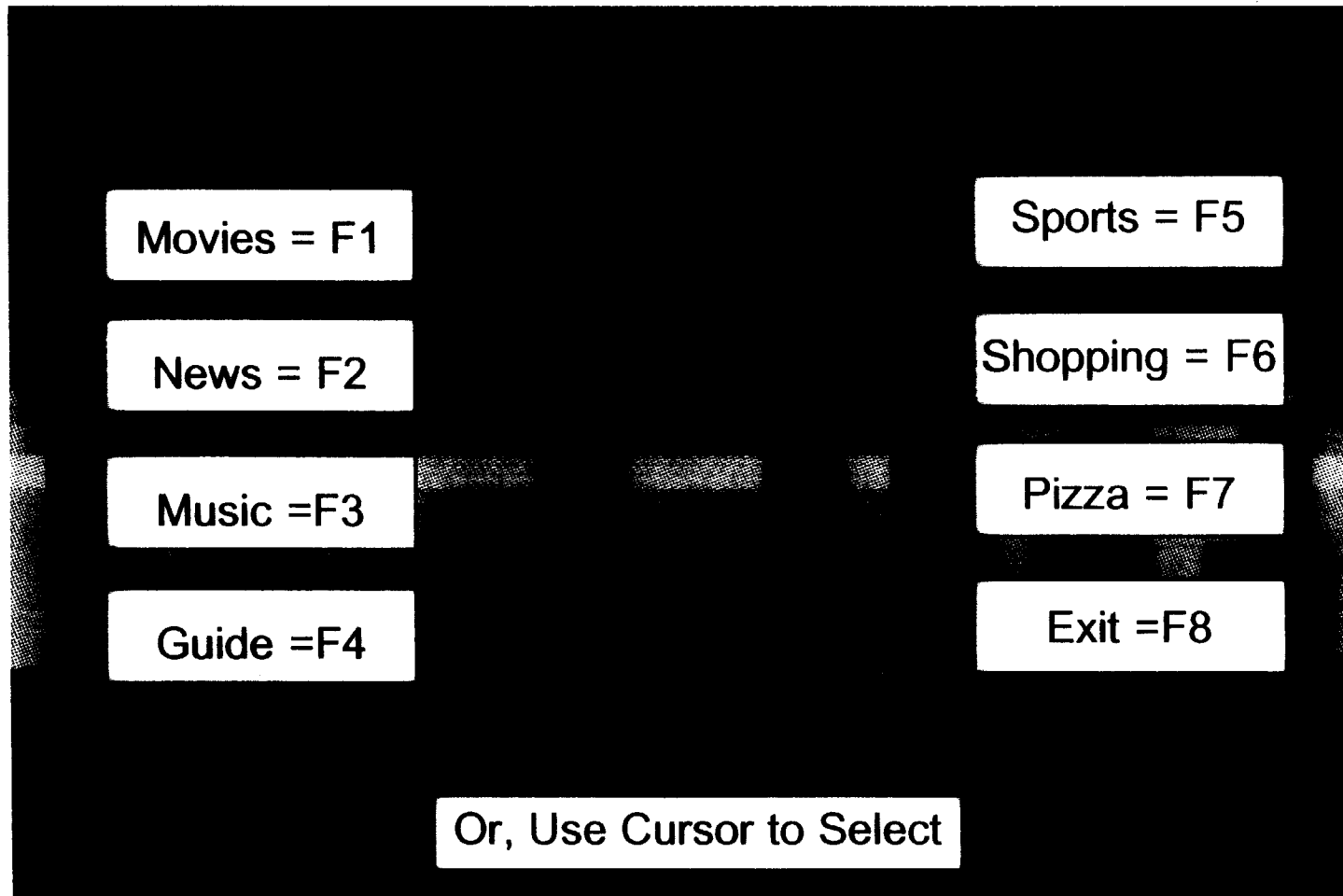


Decoder Interface Flexibility

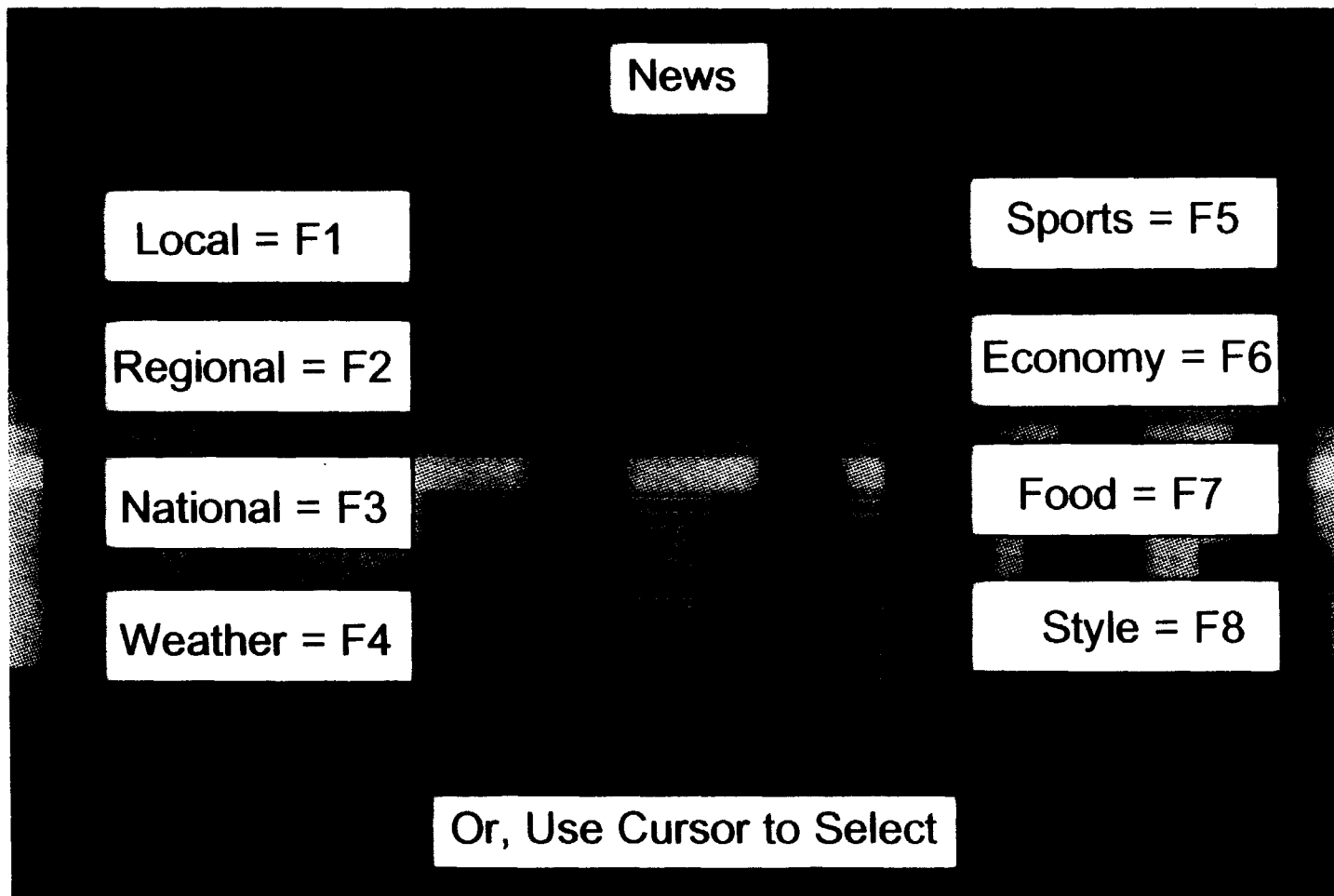


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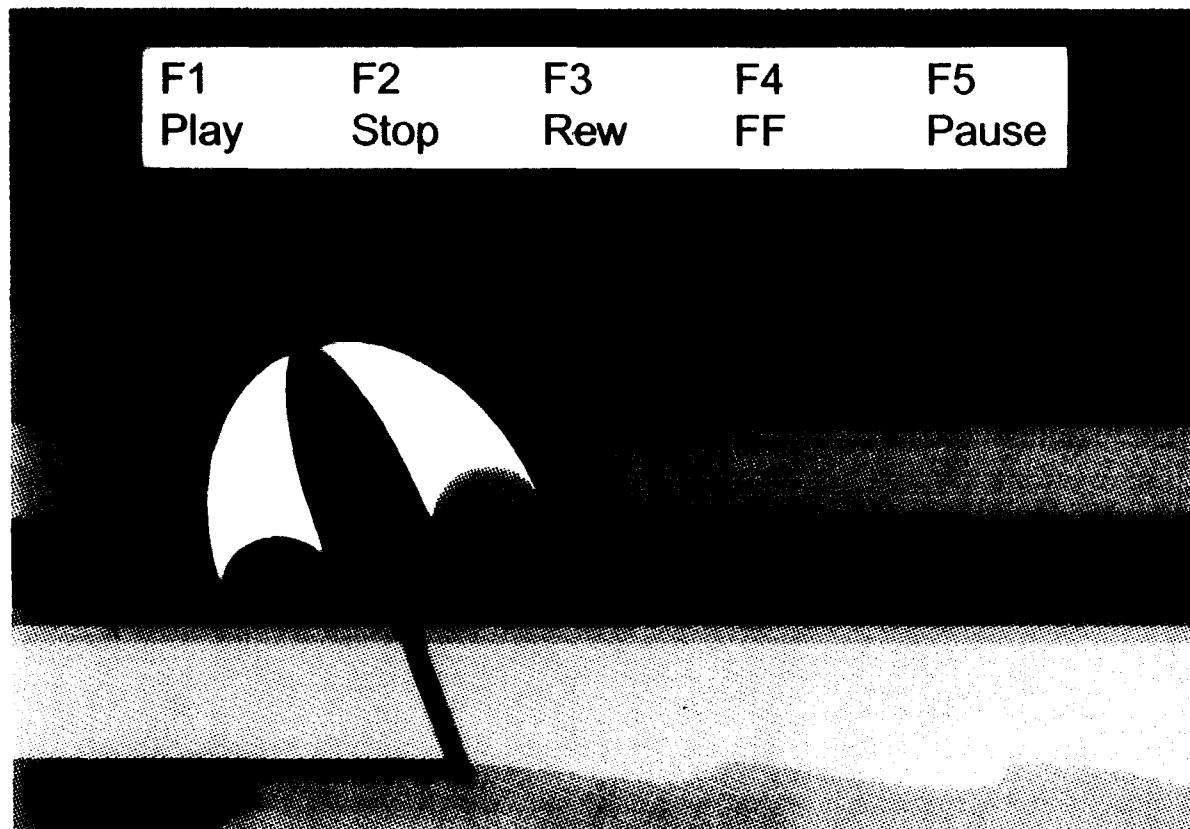
'F' Command Direct Access



'F' Command Direct Access



Decoder Interface Flexibility

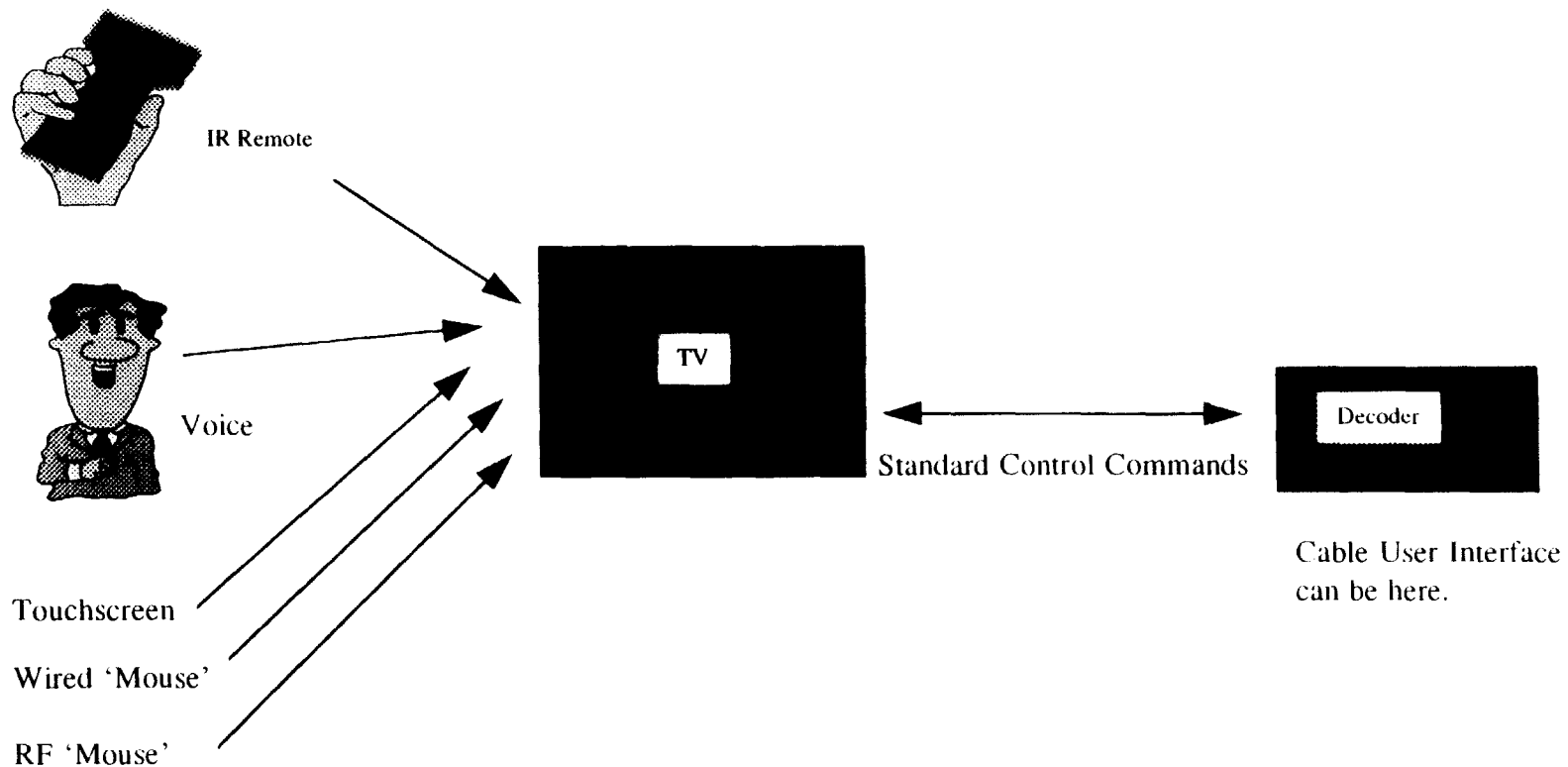


'F' Command Flexibility

- ◆ Or, 'F' commands do not have to be context-sensitive.
- ◆ They can be 'fixed' to always represent one function.
- ◆ For example
 - F1 = PPV Movie Guide
 - F2 = Buy
 - F3 = Pizza
 - F4 = Weather
 - etc.
- ◆ *It's up to the service provider...*

Decoder Interface Guarantees Consumer Choice

Decoder Interface guarantees that consumer can use TV remote to access cable services.



Cable proposes adding IR Bypass

But

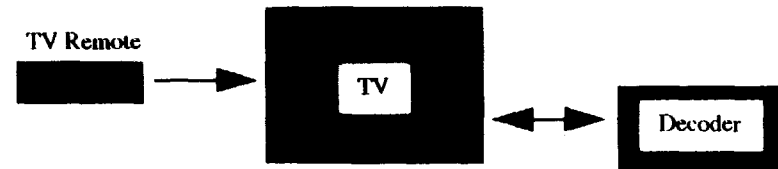
- ◆ IR Bypass = Cable Act Bypass
- ◆ IR Bypass = Bad Engineering

IR Bypass = Cable Act Bypass

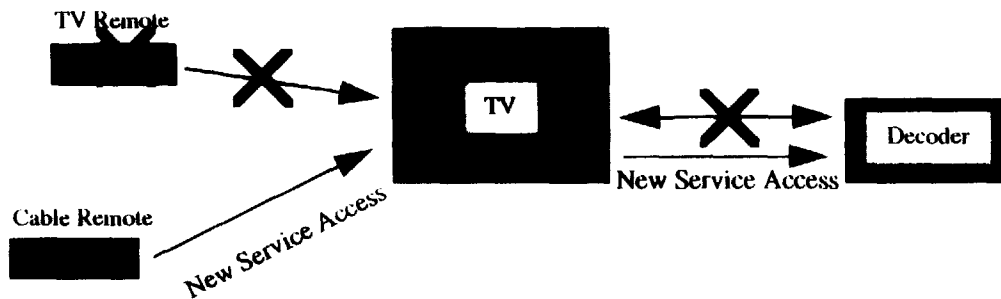
- ◆ IR Bypass will defeat the purposes of “cable-ready” consumer electronics equipment.
- ◆ Will allow cable to require the use of remotes that --
 - Prevent consumers from using the features and functions of “cable-ready” TVs and VCRs to access cable services.
 - Are incompatible with satellite or video dialtone services.
- ◆ Will frustrate and confuse consumers who have invested in sophisticated and expensive “cable-ready” equipment.
- ◆ Will dampen demand for “cable-ready” equipment, thereby perpetuating the use of cable-provided set-top boxes.

IR Bypass = Cable Act Bypass

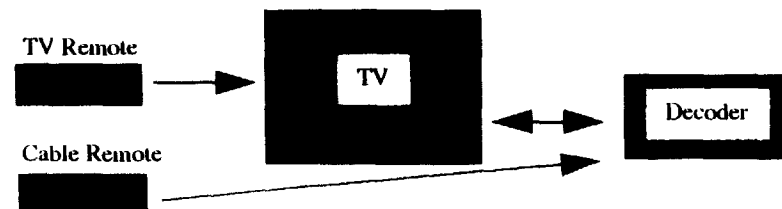
Decoder Interface guarantees that consumer can use TV remote to access cable services.



IR Bypass will give cable an incentive to require consumer to rent a cable remote to access cable services, and defeats purpose of Decoder Interface..



Cable has the flexibility to offer a cable-specific remote by using IR receiver in decoder, if desired.



IR Bypass = Bad Engineering

- ◆ IR Bypass will send commands that may not be recognized and, if recognized, that may not be correctly understood, causing unpredictable results (e.g., changing channels or turning power off)
 - In consumer electronics equipment.
 - In set-back boxes supplied by different service providers.
- ◆ IR Bypass will freeze the use of IR technology, preventing migration to more advanced RF and voice recognition technologies.

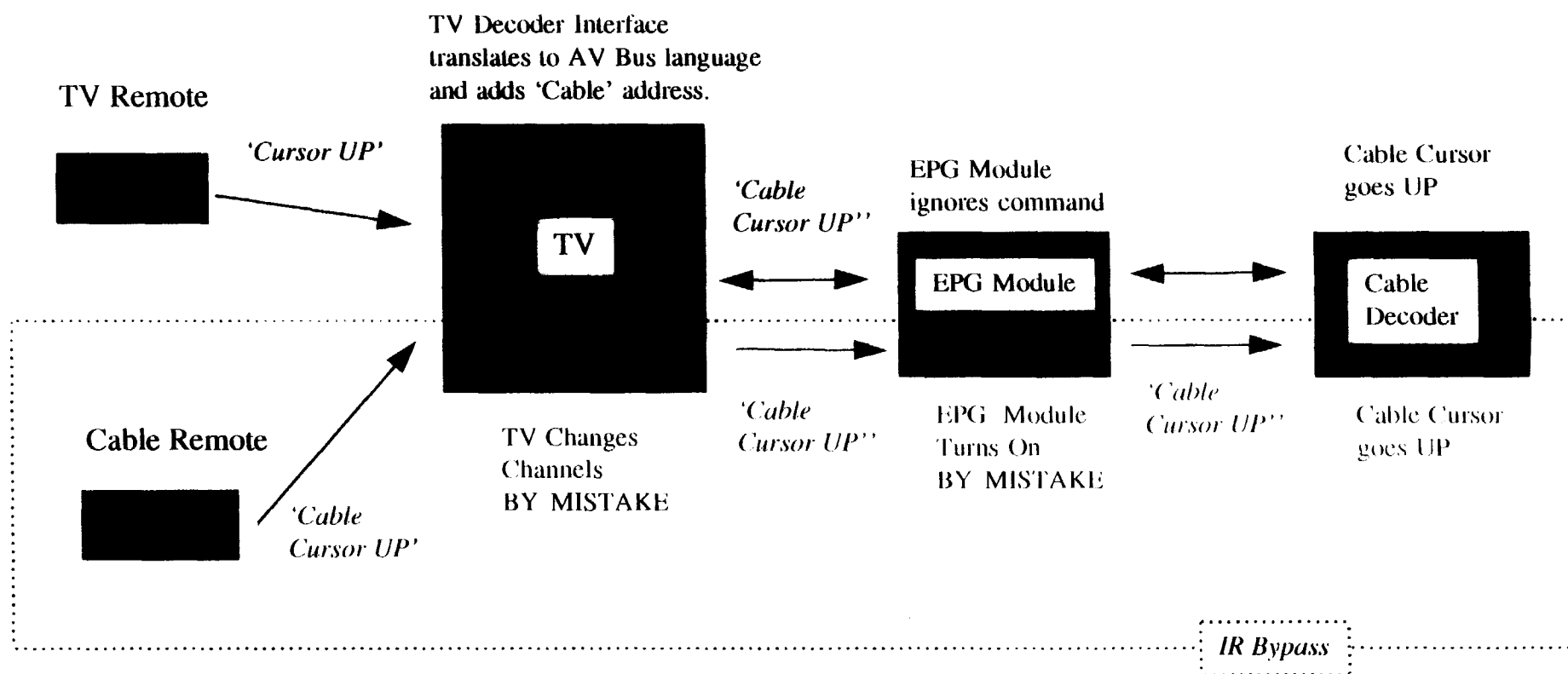
IR Bypass = Bad Engineering

- ◆ The FCC should not adopt rules that immortalize bad engineering.
- ◆ If EIA thought IR Bypass would work, we would endorse it -- either standing alone or as part of the Decoder Interface.

But --

- ◆ Standing alone, IR Bypass accomplishes nothing.
- ◆ As part of the Decoder Interface, it defeats the compatibility made possible by the interface and does so at added cost and complexity.

IR Bypass is Unreliable



IR Bypass = Additional Cost

- ◆ Current IR receivers are customized for a specific manufacturer's IR transmission scheme and codes.
- ◆ As a result, current IR receivers will not pass all IR transmissions.
- ◆ Adding IR Bypass will require adding a second IR receiver to 'cable-ready' models.